

# Industrial Design USA: Human Systems



Prototype plastic man courtesy Henry Dreyfuss Associates

# Design Quarterly 88

# Design Quarterly 88

Published by Walker Art Center  
Vineland Place  
Minneapolis, Minnesota

Editor: Mildred S. Friedman  
Graphic Design: James E. Johnson  
Circulation and typesetting: Pamela Barclay  
Graphic Design Assistance: Wayne Henrikson

**Design Quarterly** is listed in Art Index

Change of address: To insure receiving all copies, give old address as well as the new one and allow five weeks for change to become effective.

**Subscription rates:**

4 issues \$5, 8 issues \$9.25, 12 issues \$12.50

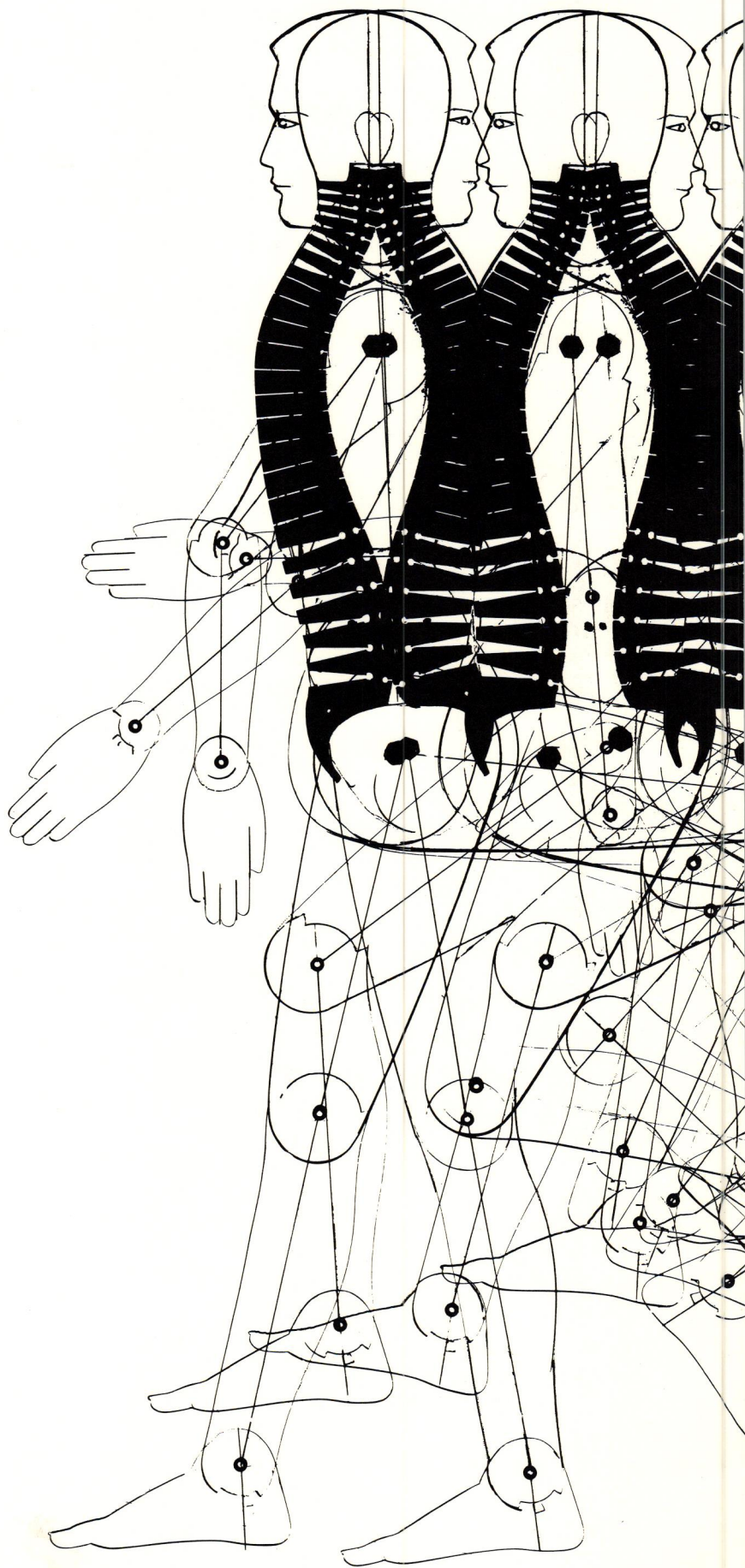
Single issues \$1.60

Double issues \$3.00

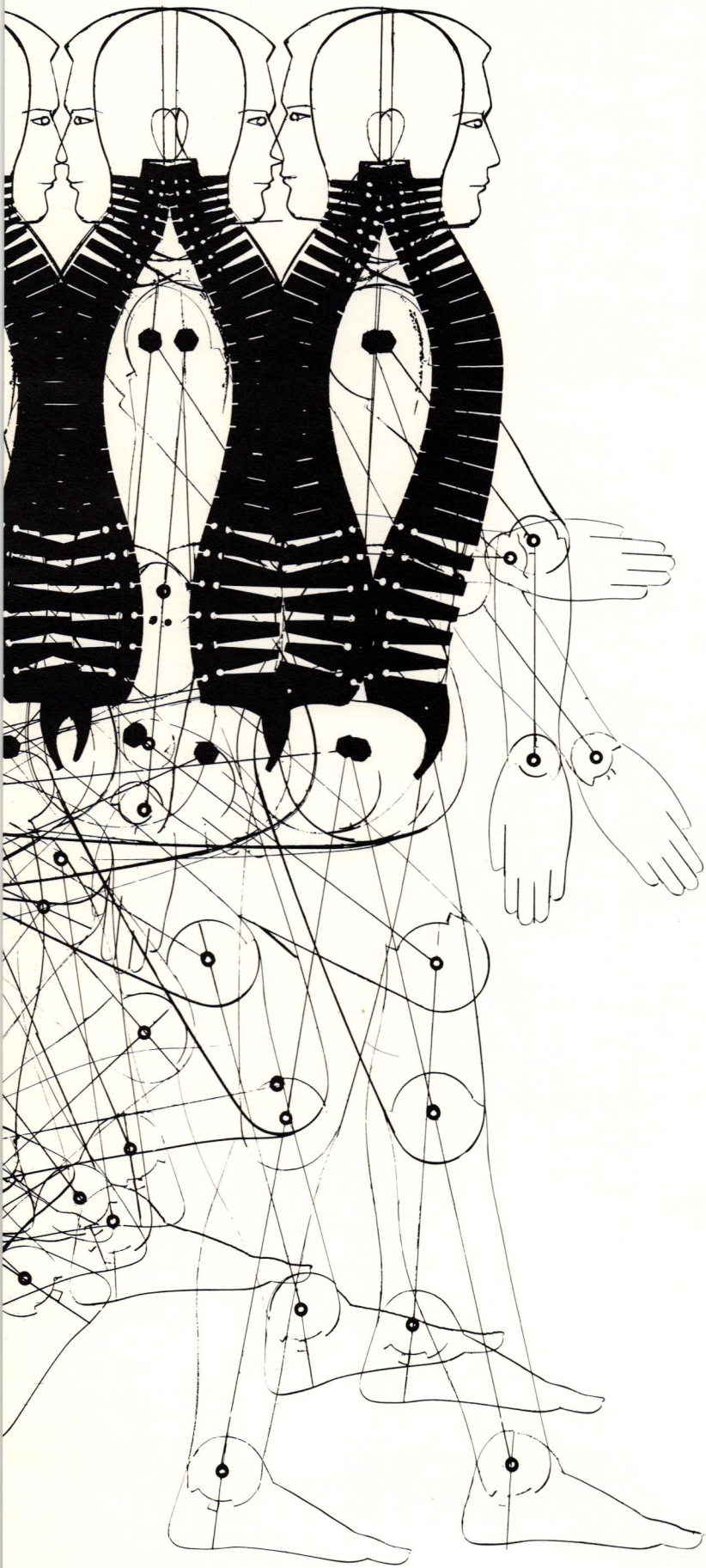
(Double issue constitutes 2 issues)

Foreign postage: \$1.00 for 4 issues

This issue of **Design Quarterly** is supported in part by a grant from the National Endowment for the Arts, Washington, D. C.



# Industrial Design USA: Human Systems



Patricia Conway

**Contents**

<b>Editor's Notes and Acknowledgments</b>	<b>3</b>
<b>Introduction</b> Percival Goodman, F.A.I.A.	<b>4</b>
<b>Industrial Design USA: Human Systems</b> Patricia Conway	<b>5</b>
<b>Ron Beckman/REDE</b>	<b>13</b>
<b>Niels Diffrient/Henry Dreyfuss Associates</b>	<b>17</b>
<b>Jay Doblin</b>	<b>20</b>
<b>Leonard Singer/Charles Owen/IIT</b>	<b>24</b>
<b>Gene Tepper/Tepper &amp; Steinhilber Associates, Inc.</b>	<b>31</b>
<b>Robert Propst/Herman Miller Research Corporation</b>	<b>35</b>

It has been some time since *Design Quarterly* has published material on industrial design. "Good Design" has long been an accepted goal of the profession and is no longer an issue for debate; at least among serious practitioners and their clients, it is a given. It is also accepted that good design, in the old award-winning sense of the term, is the icing on a cake so rich it has become difficult to digest.

Over the last half-dozen years, the "leading edge" of the industrial design profession has moved into an area that deals essentially with questions of resource management and only secondarily with product design: conservation of dwindling and non-replenishable raw materials, recycling, extension of product life, reduction and control of environmental pollution, and real as opposed to market-manipulated user needs. Most of these questions have been widely discussed from the environmentalists' and consumer advocates' points of view. How the design professions are responding to them is the focus of *Design Quarterly 88*.

In addition to thanking those designers whose work and comments appear in this issue, *Design Quarterly* would like to acknowledge the contributions of:

F. Eugene Smith (F. Eugene Smith Associates), Dick Latham (Richard Latham Associates), Larry Goldfarb (Brown, Goldfarb, Gallagher), Harold Lewis Malt (Harold Lewis Malt Associates), Arthur Pulos (Chairman of the Design Department, Syracuse University), James Alexander (Professor of Industrial Design, University of Cincinnati), Robert Alexander (Professor of Design, Michigan State University), Bob Malone (Dean of Art and Design, Pratt Institute), Aarre K. Lahti (Professor of Design, University of Michigan), William Lansing Plumb (William Lansing Plumb & Associates), Walter Dorwin Teague Associates, Dave Chapman (D.C. Design), Harry Bartley Archinal, Anita Margill and T. Chipley for their thoughtful responses to the DQ questionnaires and interviews;

Victor Papanek for the many valuable insights contained in his book, *Design for the Real World* (Pantheon, 1971);

Roger Guilfoyle, Editor of *Industrial Design*, and Ann Ferebee, Editor of *Design and Environment*, for their general guidance;

Walter McQuade, Editor of *Fortune*, for the retrospective view and first paragraph quote provided by that magazine's analysis, "Decline of Industrial Designers," published February 1963;

Percival Goodman, Professor of Architecture at Columbia University and the author (with Paul Goodman) of *Communitas*, for his introduction to this issue; and

Patricia Conway, free-lance writer, photographer and planning consultant, who wrote this analysis of industrial design after many hours of conversation with designers around the country. Formerly an Associate Editor of *Industrial Design* magazine, she has written articles on design, transportation, resource management and urban affairs for *Design and Environment*, *Nation's Cities*, "Potomac" (the Sunday supplement of *The Washington Post*) and is the author of *Design Quarterly 71*, "Mass Transit: Problem and Promise."

## Introduction

Percival Goodman, F.A.I.A.

It is not architects who are responsible for the look of our cities, our suburbs, our offices and our homes. It is industrial designers. Not because industrial designers have a more urgent message than architects, but because of their role as form givers in mass production. Unlike their antecedents—the anonymous draftsmen and boiler plate makers who put curlicues on the first sewing machines and decorated the interiors of Pullman cars—the early industrial designers were highly sophisticated technicians who had not only learned the lesson of Paxton's Crystal Palace (new materials plus new methods equal new forms), but who appreciated the insights of market research and the value of visual slogans. From these men came the wide ranging choices—the sensitive and the elegant designs as well as the perversions possible only in an economy producing more than is strictly necessary even for the rich—that formed the taste of the American people and created the American scene.

Architects have been encumbered by traditions: banks, mortgages, zoning laws, building codes, craft unions and God knows what other machinery that is slow to change. Indeed, it took more than a hundred years to go from the prototype glass-and-steel Crystal Palace to the modern glass-and-steel Seagram building. But industrial designers' clients have always asked for novelty, variety, change. The objects they manufacture are intended to catch the eye for a season and then go out of fashion. Under such conditions, industrial designers can be whimsical, even experimental, and their innovations find quick popular acceptance. Making their way from department stores, supermarkets, gift shops and automobile showrooms directly into homes, offices and parking lots, the creations of industrial designers become the instant American esthetic. Only because the most conservative bankers and government officials are constantly being educated by the omnipresent creations of industrial designers do architectural innovations, like glass curtain walls, eventually become acceptable mortgage risks.

So who is to blame for the fact that New York's World Trade Center flushes 7000 toilets directly into the Hudson River? That Los Angeles County has been told it may have to cut automobile traffic 80 percent by 1975 in order to meet government environmental standards? The architects? The industrial designers? I suppose so, but then are we not all partners in the rape of our environment?

It is generally agreed that if this planet is to remain habitable, the technology and economies of developed countries must be drastically reoriented. The only question is how soon we will have to start considering the effect of what we design on the biosphere. To my mind, the approach we must take is suggested by San Francisco's Environmental Impact Law which asks: "Will the proposed building adversely affect the environment?" "Are there adequate sewers, water, energy, transportation, to service the building?" To these questions I would add: "Do people really need the building?" "If a building is needed, are more desirable alternative sites or designs available?" I hope that citizens themselves will start asking these questions, not only of architects and their clients, but of industrial designers and theirs.

For a profession only 50 years old, modern industrial design has had a remarkably turbulent career and has generated more than its share of controversy. From its Bauhaus beginnings in the 1920s until today, when its practitioners in the United States alone are conservatively estimated at some 10,000, industrial design has been the subject of endless theoretical debate and, more recently, severe practical criticism. It's been declared dead or dying a number of times (a pronouncement which, if correct, would make it what one observer has described as the "shortest-lived free-standing profession on record") and survived to prove its obituaries premature. It is regarded by some as a positive force capable of reshaping and enhancing nearly every aspect of our lives, and by others as an almost criminal exercise in greed, negligence and willful destruction of the environment. The problems it raises subsume everything from economics and technology to morals, ethics, philosophy, esthetics and politics. Among its current practitioners are a few very aware, very articulate individuals who really care about these problems (but who can't, or don't, always do anything about them) and many more who regard their calling as just another way to make a buck.

The purpose of this *Design Quarterly* is to examine how the industrial design profession in the United States is responding to some of the more crucial problems facing it today, and to try to determine the direction in which the "leading edge" of the profession is headed. But in order to put contemporary American industrial design in its proper perspective, it is important to recall the profession's not-so-distant origins.

Unlike the Bauhaus movement in Europe, industrial design in this country was from its inception a commercial rather than an academic or philosophical exercise. Born during the Great Depression, industrial design in the United States enjoyed immediate success as a stimulant to the then sluggish mass market. Its function was two-fold: to innovate new products or improve the basic operating characteristics of existing ones; and to give products greater market appeal through "styling." At the same time, the position of design in the corporate hierarchy became firmly established: somewhere above the typing pool but subordinate to marketing and sales management. Whether or not prophetic of the direction the profession was later to take, many pioneers like Norman Bel Geddes and Henry Dreyfuss had begun their careers not as painters, craftsmen, engineers, inventors or academicians—but as stage and window display designers. Thus the historic marriage of art and industry at Weimar in 1919 was celebrated here during the 30s as a union of artifice and salesmanship.

After a brief eclipse during World War II (production was temporarily shifted from consumer to military goods), industrial design re-emerged, but the circumstances surrounding its early success were dramatically reversed. No longer challenged to revive a sagging economy, the profession was able to ride the post-war boom of the late 40s and early 50s by simply responding to the pent-up demands of a public starved for consumer goods. As these demands escalated to the giddy heights of all-out consumerism, industrial designers eagerly lent their talents to one of the most critical phenomena in modern economic history: accelerated obsolescence. Heretofore